I CLAIM:

1. In a wireless data communication system, wherein mobile units associate with access points for data communication therewith, and wherein said data communication system operates according to a protocol wherein said mobile units are arranged to conserve power by signaling an associated access point that the mobile unit is entering power save mode, and wherein said associated access point buffers data packets for mobile units in power save mode until it receives a polling signal from a corresponding mobile unit, a method of communicating audio or video representative data between a mobile unit and an associated access point comprising:

signaling said associated access point that said mobile unit is in a power save mode;

powering down a transmitter and receiver of said mobile unit at intervals corresponding to a selected period of time corresponding to the duration of at least an audio or video signal forming an audio or video signal data packet;

accumulating of at least audio or video signal data in said mobile unit for a time interval corresponding to said selected period of time to form at least audio or video representative transmit data packets;

buffering at least audio or video representative receive data packets at said access point; and

powering up said mobile unit transmitter and receiver for communication with said associated access point for a communication session, said communications sessions occurring at intervals corresponding to said selected period of time and including

communicating said accumulated transmit data packets and said buffered receive data packets between said mobile unit and said associated access point.

2. A method as specified in claim 1 wherein said communication session includes transmitting a polling message from said mobile unit to said access point.

3. A method as specified in claim 1 wherein said mobile unit initiates a communication session when it has processed transmit data packet for communication to said access point.

4. A method as specified in claim 1 wherein said mobile unit includes a signal in said communication session that said mobile unit is no longer in said power save mode, and wherein said mobile unit concludes said communication session by signaling said access point that it has entered said power save mode.

5. A method as specified in claim 1, wherein said mobile unit includes a processor arranged to operate at least two clock rates, and wherein said processor is operated at a lower clock rate during a selected portion of said time interval.

6. A method as specified in claim 5 wherein said processor is programmed to compress accumulated data, and wherein said processor operates at a first lower clock rate during at least a portion of said time period to accumulate data and operates at a second higher clock rate to compress accumulated data.

7. A method as specified in claim 6 wherein said processor is programmed to decompress said receive data packets, and wherein said processor is operated at said second higher clock rate to decompress said receive data packets.

8. A method as specified in claim 7, wherein said processor is arranged to parse said receive packets and said processor is operated at said second higher clock rate to parse said receive packets.

9. A method as specified in claim 8 wherein said processor is programmed to store receive data packets in at least one buffer.

10. A method as specified in claim 9 wherein said mobile unit receives quadrature components of signals from said access point and wherein said quadrature signals are stored in first and second buffers.

11. A mobile unit for providing communications in a wireless data communications network wherein data is transmitted from access points to mobile units in data packets, comprising:

a receiver for receiving radio signals including at least audio or video data packets from said access point, said at least audio or video data packets corresponding to a selected period of at least audio or video information;

a transmitter for transmitting signals to said access point;

a processor for processing said audio or video data packets and for providing output audio or video data; and

a digital to analog converter and an audio or video output circuit for providing output audio or video corresponding to said audio or video data packets; wherein said processor is programmed to control operation of said transmitter and receiver and to periodically power down said transmitter and receiver for selected time intervals at a period corresponding to said selected period of audio or video information.

12. A mobile unit as specified in claim 11 wherein said processor is arranged to cause said transmitter to transmit a polling signal to said access point at said period corresponding to said selected period of audio or video information.

13. A mobile unit as specified in claim 11, wherein said processor is arranged to operate at first and second clock rates, and wherein said processor is operated at a lower clock rate during second intervals which are a selected portion of said period.

14. A mobile unit as specified in claim 13 wherein said processor is programmed to decompress said receive data packets, and wherein said processor is programmed to operate at said second higher clock rate to decompress said receive data packets.

15. A mobile unit as specified in claim 13 wherein said processor is programmed to parse said receive packets and said processor is programmed to operate at said second higher clock rate to parse said receive packets.

16. A mobile unit as specified in claim 15 wherein said processor is programmed to store receive data packets in at least one buffer.

17. A mobile unit as specified in claim 16 wherein said mobile unit receiver receives quadrature components of signals from said access point and wherein said quadrature signals are stored in first and second buffers.

18. A mobile unit for providing communications in a wireless data communications network wherein data is transmitted between access points and mobile units in data packets, comprising:

an audio or video circuit for providing an audio or video output in response to supplied audio or video digital signals and for providing digital output signals in response to audio or video input;

a receiver for receiving radio signals including audio or video data packets from said access point, said audio or video data packets corresponding to a selected period of audio or video information;

a transmitter for transmitting signals to said access point; and

a processor for processing receive audio or video data packets received by said receiver and providing audio or video digital signals to said audio or video circuit corresponding thereto and for receiving digital output signals from said audio or video circuit and providing transmit audio or video data packets to said transmitter;

wherein said processor is programmed to control operation of said transmitter and receiver and to periodically power down said transmitter and receiver for selected time intervals at a period corresponding to said selected period of at least audio or video information.

19. A mobile unit as specified in claim 18 wherein said processor is arranged to cause said transmitter to transmit a polling signal to said access point at said period corresponding to said selected period of audio or video information.

20. A mobile unit as specified in claim 18, wherein said processor is arranged to operate at first and second clock rates, and wherein said processor is operated at a lower clock rate during second intervals which are a selected portion of said period.

21. A mobile unit as specified in claim 20 wherein said processor is programmed to compress said digital output signals and wherein said processor is programmed to operate at said second higher clock rate to compress said digital output signals.

22. A mobile unit as specified in claim 21 wherein said processor is programmed to decompress said receive data packets, and wherein said processor is programmed to operate at said second higher clock rate to decompress said receive data packets.

23. A mobile unit as specified in claim 22 wherein said processor is programmed to parse said receive data packets and said processor is programmed to operate at said second higher clock rate to parse said receive data packets.

24. A mobile unit as specified in claim 23 wherein said processor is programmed to store receive data packets in at least one buffer.

25. A mobile unit as specified in claim 24 wherein said mobile unit receiver receives quadrature components of signals from said access point and wherein said quadrature signals are stored in first and second buffers.